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Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic / *Hydrographic* } *Sheet No.* 3530

State North Carolina

LOCALITY

Core Sound

Back Sound and the Straits

19 13

CHIEF OF PARTY

P. C. Whitney

U.S. GOVERNMENT PRINTING OFFICE: 1934

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Department of Commerce and Labor

COAST AND GEODETIC SURVEY

Superintendent.

State:

DESCRIPTIVE REPORT.

Hyd. *Sheet No.* 3530

LOCALITY:

191

CHIEF OF PARTY:

11—4645

General Locality: Vicinity of Beaufort, N. C.

Special Locality: The Straits and Back Sound

Officers in charge: P.C.Whitney, F.S.Borden, E.C.Backmann

Chief of Party: P. C. Whitney

February 26, to April 14th, 1913

Scale: 1/10000

3550

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Discriptive Report

to accompany

Hydrographic Sheet, field No. 1

The Straits and Back Sound

North Carolina

1913

Scale 1/10000

The hydrography plotted on this sheet is that lying in The Straits and Back Sound, North Carolina, with Eastmouth Bay, Harker's Island.

The signals as plotted depend upon a triangulation executed the same season by the party under my charge, in co-operation with Assistant Boutelle of the Steamer Endeavor.

The waters in the areas covered are very shallow, excepting in well defined channels, mentioned latter.

The Straits

The Straits lies between Harker's Island on the south and the main-land on the north. The Shore-line on the north side is indented with several small bays of no importance, being dry at low-water, excepting Sleepy Creek and Chadwick Bay. These have an average depth of 1 1/2 feet, with no channel. Sleepy Creek has a very narrow entrance due to an oyster bar that makes out from the western point and which uncovers at low water. On the south side is Westmouth Bay, a shallow body of water. The shore-line is marshy and the

low-water line greatly reduces the water area of the Bay. At the eastern end of The Straits, south side, are numerous marshy islets, with little or no water between them at low water. The small arm to the west of Westmouth Bay is completely blocked by shoals at low tide. A navigable channel, with a least depth of 6 feet and an average width of 150 yards provides passage through The Straits into Core Sound from the westward. Outside of this channel the water is very shallow. The channel is well marked by the color of the bottom on its edges, especially at low-water and this is the best guide for staying in the middle and best water. The changes in the direction of the channel, or turning points are well marked with single pile lights of appropriate color and the spindles, as shown on the smooth sheet. The spindles are liable to be pushed down by gasolene launches and their absence will not be surprising. Only those shown were standing at the time of survey. There are numerous small wharves for gasolene launches along the main land shore. At Marshallberg there are three small wharves, but they are in a poor condition and have less then 5 feet at low water off them. The mail route from Beaufort to Ocracoke makes Marshallberg both ways and The Straits P. O. westbound. Only limited supplies can be purchased there.

Eastmouth Bay

Eastmouth Bay is a large indentation on the eastern side of Harker's Island. A crooked channel at the head of the Bay

through the marshes provides a boat passage to Westmouth Bay at high water. The entire area of Eastmouth Bay is very shallow and has no commercial importance.

Back Sound

This body of water lying between Harker's Island and Shackleford Banks is for the most part very shallow. A channel enters this sound from the west and off Bottle Run Point it divides, one section running off and along the south shore of Harker's Island to Shell Point and the other going south of Gull Island, rapidly shoaling and ending about 3/4 mile to the eastward. These channels were sounded out with a close system but on the flats outside only an open system was carried on. Along Harker's Island there are numerous small wharves for gasolene fishing boats and to carry on the little commerce necessary to the Island. The shore-line is all sandy with a fairly steep beach. Shackleford Banks is all marshy on the inside shoreline, with many small grassy and marshy islets. Thereis very little water and at present no commercial developement.

Tides were read for the reduction of The Straits and Eastmouth Bay hydrography at Marshallberg and for the Back Sound work a gauge was established on a wharf on the south shore of Harker's Island as shown on the smooth sheet.

The officers directly in charge of this work ware Aid F. S. Borden of the Str. Hydrographer, E. C. Backmann of the Str. Endeavor and the writer.

Respectfully submitted

Paul C. Whitney

Cmndg Sto. Hydrographer.

Department of Commerce and Labor
COAST AND GEODETIC SURVEY
Form 28

GEOGRAPHIC

Locality The Straits and Back Sound, N. C. *Datum.*

11—676

STATIONS.	LATITUDE. ° ′ ″	Seconds in Meters.	LONGITUDE. ° ′ ″	Seconds in Meters.
Willis Bluff$_2$ 1908-13 "Willis"	34 41 56.23	1732.5	76 34 53.87	1371.3
Bull (Boutelle 1913)	34 40 18.16	559.6	76 35 20.44	520.3
Hark Boutelle 1913)	34 42 47.68	1469.3	76 35 12.02	305.8
Mud 1913	34 43 20.26	624.3	76 34 31.07	790.6
Pig (Boutelle) 1913	34 43 35.16	1083.5	76 34 59.93	-1.8
Tree 1913	34 42 47.34	1458.7	76 34 29.49	750.4
Deep 1913	34 42 44.41	1368.4	76 34 06. 22	158.2
Near 1913	34 43 20.07	618.4	76 34 06.40	162.8
West 1913	34 43 21.76	670.5	76 33 46.16	1174.5
Mouth 1913	34 42 43.19	1330.8	76 32 40.27	1024.7
Point 1913	34 43 09.80	302.0	76 32 30.72	781.7
Lost 1913	34 43 16.41	505.6	76 31 32.05	815.6
Isle 1913	34 42 47.76	1471.6	76 31 36.51	929.1
Berg 1913	34 43 06.56	202.1	76 31 01.37	34.9
Land 1913	34 42 46.90	1445.5	76 31 18.99	483.3
Shell$_3$ 1913	34 40 58.32	1796.7	76 31 31.17	793.5

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POSITIONS.

State

	AZIMUTH. ° ′ ″	BACK AZIMUTH. ° ′ ″	TO STATIONS.	DISTANCE. Meters.	LOGARITHMS.

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY
Form 28

GEOGRAPHIC

Locality The Straits and Back Sound *Datum.*

11—676

STATIONS.	LATITUDE. ° ′ ″	Seconds in Meters.	LONGITUDE. ° ′ ″	Seconds in Meters.
Cape Lookout L.H. 1886-1908 "Look" 13	34 37 21.73	669.5	76 31 29.22	744.4
Marsh 1913	34 40 44.30	1364.8	76 30 21.36	543.7
East 1913	34 42 21.77	670.8	76 31 10.47	266.5
Chad n.d. 1913	34 43 25.96	799.9	76 33 23.68	602.5
Wick n.d. 1913	34 43 33.25	1024.5	76 33 11.89	302.6
Harkers Island Light 1913 "Lit"	34 43 08.11	249.[illegible]	76 31 38.16	971.0
Marshallberg Light 1913 "Mar"	34 42 52.77	1626.0	76 30 55.79	1419.6
N. E. Tower "Nor" 1913 U.S.E.	34 38 06.44	198.4	76 30 56.15	1430.2
Crab Point Light 1913 "Crab"	34 42 57.09	1759.1	76 32 38.30	974.6
Westmouth Bay Light 1913 "Con"	34 43 02.70	63.8	76 33 09.45	240.5
Gull n.d. 1913	34 40 53.21	1639.6	76 33 36.39	926.5
Baptist Church spire "Shin" Marshallberg 1913	34 43 42.13	1298.2	76 30 57.06	1451.6
Methodist Church spire "Spi" Marshallberg 1913	34 43 27.67	852.6	76 31 03.55	90.3
N. W. Tower "Tow" 1913 No check U.S.E.	34 38 00.86	26.5	76 31 56.28	1433.4
Un (Channel stake, unlighted beacon n.d.) 1913	34 43 00.83	25.6	76 34 36.69	933.8

J.S.P.

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POSITIONS.

State

	AZIMUTH. ° ′ ″	BACK AZIMUTH. ° ′ ″	TO STATIONS.	DISTANCE. Meters.	LOGARITHMS.

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY
Form 28

GEOGRAPHIC

Locality The Straits and Back Sound *Datum.*

11—678

STATIONS.	LATITUDE. ° ′ ″	Seconds in Meters.	LONGITUDE. ° ′ ″	Seconds in Meters.
Harker's Island Church Sp. "Old" 1886-1908-13 n.d.	34 41 36.90	1137.1	76 33 08.80	224.0
"Ho" Chimney House east side Chadwick Bay	34 43	1419	76 33	184
"Yel" Chimney yellow house west side Sleepy Creek	34 43	1213	76 31	1144
"sand" Topographic flag west side of Sleepy Creek	34 43	1510	76 31	778
"Mud" Topographic flag north side Sleepy Creek	34 43	1798	76 31	860
"Pro" Chimney house north end of Sleepy Creek	34 43	1769	76 31	718
"New" Spire of new church Harker's Island	34 41	1329	76 33	1078
"Crook " Topographic flag Eastmouth Bay	34 42	46	76 32	666
"High" Topographic flag north side Eastmouth Bay	34 42	24	76 31	657
"Lim" Chimney House on Baregrass Island	34 39	540	76 32	495
"Whit" Topographic flag on Whitehurst Island	34 39	610	76 31	130
"Gut" Topographic flag	34 38	1505	76 31	696
"Top" Topographic flag in Westmouth bay	34 42	173	76 32	1125 F.L.P.
Harkers Island Tide Gauge	34 41	816	76 33	144
Marshallberg Tide Gauge	34 43	186	76 31	318

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POSITIONS.

State

	AZIMUTH. ° ′ ″	BACK AZIMUTH. ° ′ ″	TO STATIONS.	DISTANCE. Meters.	LOGARITHMS.

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S T A T I S T I C S

To accompany Hydrographic Sheet No.1

The Straits and Back Sound

North Carolina

1913

Date	Boat	Vol.	Day	Pos.	Sdgs.	Miles	Remarks
			blue				
Feb. 26	Whaleboat	1	a	135	1229	13.9	
" 27	"	1	b	113	900	11.0	
Mar. 23	"	2	c	114	462	10.4	
Apr. 2	"	2	d	60	714	9.0	
" 3	"	2	e	60	642	6.0	
" 11	"	3	f	14	126	2.3	
" 12	"	3	g	18	63	0.5	
			red				
" 4	Launch 44	4	a	32	510	5.4	Ass't. Boue
" 7	"	4	b	83	1259	16.4	telle's Party
" 10	"	4	c	43	463	8.2	
" 10	"	5	d	52	632	7.8	
" 11	"	5	d	105	1134	15.5	
" 14	"	5	e	20	235	3.1	
	Totals	5	13	849	8369	109.5	

Tide Gauges

Marshallberg, N. C. Plane of reference, 2.7 feet
This plane tobe used in The Straits and Eastmouth Bay.

Harker's Island Gauge, N. C. Plane of reference, -0.5 feet
This plane to be used in Back Sound

MKQ
Oct.28,1913.

HYDROGRAPHIC SHEET 3530.

Beaufort Harbor and Core Sound, N. C., by

Assts. J.B.Boutelle and P.C.Whitney in 1913.

TIDES.

	Harkers I.	Marshallberg.
	ft.	ft.
Mean low water, or plane of reference on staff	1.0	2.7
Lowest tide observed " "	0.3	2.0
Highest " " " "	3.6	4.6
Mean range of tide	1.4	1.0

Hyd. Sheet #3530.

"Beaufort Harbor and Vicinity N.C.,

Positions covering the work of this sheet were plotted by the "Field Party and have been taken as correct although a number of checks were made where errors were apparent and in other instances as a matter of precaution.

The work is considered good throughout, sufficient lines run and soundings taken to develop channels and shoals.

Only a few cross lines were run and where run soundings were found to check fairly well.

Soundings are plotted in feet

John D. Torrey

12/3/13.